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## Background

Intermediate-risk acute myeloid leukemia (IR-AML) is heterogeneous subgroup of AML. It is, therefore, important to find novel factors that stratify this subgroup to implement risk-adapted therapy. RQ-PCR is more sensitive than morphology for the identification and quantification of residual leukemic cells. Quantification of *WT1* transcript level in bone marrow (BM) at day 14 induction chemotherapy could more precisely discriminates patients of different relapse risk than the number of blast cells.

## Results

67,7% (21/31)pts had remission after 1<sup>th</sup> course and 90,3 % (28/31) after two courses. Median of blasts level on the 14<sup>th</sup> day was 5,3% (0-88%) and *WT1* level on the 14<sup>th</sup> day was 921,5copies/10<sup>4</sup> ABL (range 6,5 - 19257,7). Cut-off level of *WT1* decrease for CR prognosis was 0,85 lg with sensitivity 72% and specificity 100% (p=0,0033). This cut-off level was also predictive for early relapses (less than 6 mo) and RFS (respectively 100% vs 25%, p = 0,01 and 10,4mo vs 6.2mo, p=0,009 with high sensitivity and specificity). 40,9% pts with low blast level on 14<sup>th</sup> day had overexpression *WT1* with a short RFS (6,0mo vs10,3mo, p=0,02). In multivariate analysis including CR after the first induction course, blast percentage at day 14, level *WT1* at 14 and 28 days, independent prognostic factors for RFS were level *WT1* at day 14 (Tabl.1; p=0.04, HR:10.2; 95% CI: 1,1-93.1).

## Objective

To determine the clinical significance of *WT1* transcript level during induction chemotherapy and correlation with treatment outcome in AML patients.

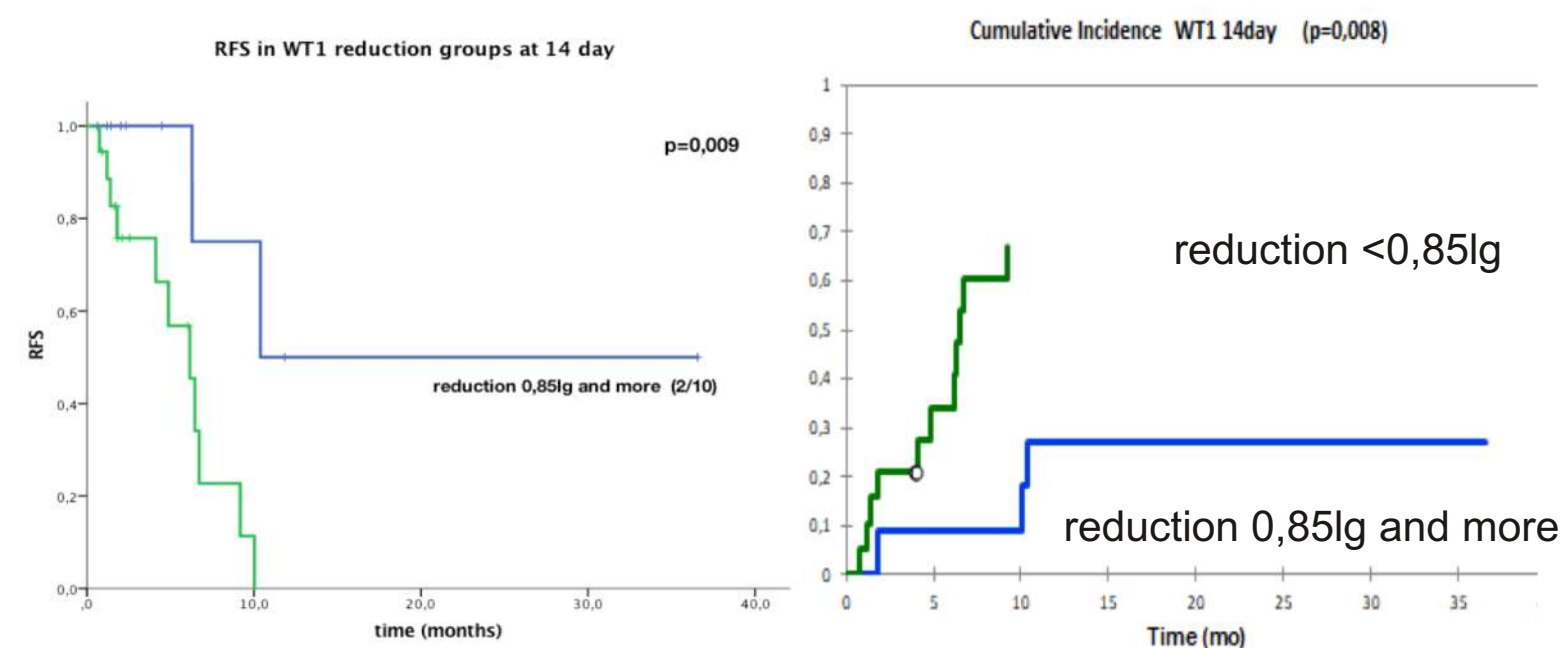


Table 1

	HR	95,0% CI	P
Blast percentage at day 14 <10%	1,107	0,21-5,95	0,91
Postinduction reduction <i>WT1</i> ≥ 2log	5,995	0,67 – 13,83	0,11
CR after the first induction	2,092	0,34 – 12,95	0,43
Level reduction <i>WT1</i> at day 14	10,202	1,12– 23,16	<b>0,04</b>

## Materials & Methods

31 de novo standard risk AML pts median age 41 (range from 22 to 70) with overexpression *WT1* were included in the study. «7+3» was used for remission induction and HiDAC» for consolidation. Median of follow up was 23,7 mo. Bone marrow was aspirated prior to the start of chemotherapy and on the 14<sup>th</sup> day of induction treatment. *WT1* expression was evaluated by the *WT1* ProfileQuant (protocol EAC) kit (IPSOGEN) following the manufacturer's instructions. A value more than 250 *WT1*/10<sup>4</sup> copies ABL was considered abnormal after being compared with samples from healthy donors.

## Summary

*WT1* transcript level on day 14 of the first induction cycle is predictive for early relapse, RFS and OS. It is more sensitive than blast level. *WT1* transcript level can discriminate intermediate prognosis pts into better and poorer prognosis